

CLAIMS

What is claimed is:

1. An indoor environmental control system having an indoor environmental control device to control at least one indoor environment, comprising:
 - a mobile sensor being movable, and comprising:
 - a wireless transmitting/receiving part to wirelessly transmit and receive information,
 - an indoor environmental sensor to sense the indoor environment, and
 - a controller to transmit the information on the indoor environment sensed by the indoor environmental sensor through the wireless transmitting/receiving part; and
 - a control server receiving the information transmitted from the mobile sensor so as to control the indoor environmental control device based upon the information received.
2. The indoor environmental control system of claim 1, wherein the indoor environment comprises at least one of temperature, humidity and air cleanliness.
3. The indoor environmental control system of claim 1, wherein the mobile sensor further comprises a driver to move the mobile sensor.
4. The indoor environmental control system of claim 1, wherein the mobile sensor further comprises a position recognizer to recognize a position of itself, and
the controller transmits the information on the position recognized by the position recognizer and the information on the indoor environments sensed by the indoor environmental sensor to the control server through the wireless transmitting/receiving part.
5. The indoor environmental control system of claim 4, wherein the control server estimates a map based upon the information on the position and the information on the indoor environments received from the mobile sensor, and controls the indoor environmental control device to control the indoor environments based upon the estimated map.

6. The indoor environmental control system of claim 1, wherein the mobile sensor further comprises a voice recognizer to recognize a voice command of a user, and wherein the controller controls the indoor environmental control device to control the indoor environments according to the voice command recognized by the voice recognizer.

7. A method of controlling an indoor environmental control system having an indoor environmental control device to control at least one indoor environment, the method comprising:
sensing indoor environments according to positions; and
controlling the indoor environmental control device to control the indoor environments based on the sensed indoor environments.

8. The method of claim 7, wherein the indoor environment comprises at least one of temperature, humidity and air cleanliness.

9. The method of claim 7, further comprising:
transmitting information on the sensed indoor environments according to the positions to a control server;
estimating a map containing the information on the indoor environments based upon the information received; and
controlling the indoor environmental control device to control the indoor environments based upon the estimated map.

10. The method of claim 7, further comprising:
recognizing a voice command of a user; and
controlling the indoor environmental control device to control the indoor environments according to the voice command recognized.

11. The indoor environmental control system of claim 1, wherein the mobile sensor is a mobile robot.

12. The indoor environmental control system of claim 1, wherein the mobile sensor, the indoor environmental control device and the control server are linked to each other through a home network.

13. The indoor environmental control system of claim 1, further comprising an access point, wherein the control server is connected with the access point and the wireless transmitting/receiving part wirelessly accesses the access point connected with the control server to access the home network.

14. The indoor environmental control system of claim 1, wherein the control server is linked to the indoor environmental control device by a power line communication.

15. The indoor environment control system of claim 4, wherein the position recognizer comprises:

a video signal processing board to process a video signal; and
a camera to recognize a position of itself, wherein:

the controller controls the camera of the position recognizer to take a photograph to recognize the position of itself in response to an input by a user,

controls the video signal processing board to process a video signal of the photograph transmitted from the camera, and

analyzes the video signal and determines the position of the mobile sensor.

16. The indoor environmental control system of claim 6, wherein the voice recognizer comprises a voice recognition engine and analyzes the voice command of the user through the voice recognition engine, creates a predetermined code based on the analyzed voice command, and transmits the code corresponding to the controller.

17. The indoor environmental control system of claim 16, wherein the controller transmits a control signal based on the received code to the control server and controls the indoor environmental control device accessing the control server.

18. The indoor environmental control system of claim 17, further comprising a speaker to output a controlled result as a voice, wherein the controlled result is transmitted from the indoor environmental control device to the mobile sensor through the control server.

19. The indoor environmental control system of claim 1, wherein the indoor environmental sensor comprising a temperature sensor and an air cleanness sensor to sense the indoor environments.

20. The indoor environmental control system of claim 3, wherein the mobile sensor further comprising an obstacle sensing part to sense an obstacle to be moved.

21. The indoor environmental control system of claim 20, wherein the obstacle sensing part comprising:

a video signal processing board to process a video signal; and

a camera, wherein the video signal of a photograph taken by the camera is processed by the video signal processing board and the controller controls the driver to operate based upon the processed video signal received from the video signal processing board of the obstacle sensing part to allow the mobile sensor to cope with the obstacle.

22. The indoor environmental control system of claim 5, wherein the map is divided by a plurality of square lattices and the information on the indoor environments sensed in one of the square lattice are the same.

23. The indoor environmental control system of claim 22, wherein the control server receives information on the position and the indoor environments from predetermined number of lattices and estimates the indoor environments based on the received information by using real-time estimate algorithm.

24. An indoor environmental control system comprising:

a mobile sensor being movable and comprising:

an indoor environmental sensor to sense the indoor environment, and

a controller to transmit the information on the indoor environment sensed by the indoor environmental sensor; and

an indoor environmental control device to control at least one indoor environment and comprising a control server to receive the information transmitted from the mobile sensor so as to control the indoor environmental control device based upon the information received.

25. The indoor environmental control system of claim 24, wherein the control server recognizes a position of the mobile sensor.

26. An indoor environmental control system comprising:
a mobile sensor being movable and comprising:
 a wireless transmitting/receiving part to wirelessly transmit and receive information,
 an indoor environmental sensor to sense the indoor environment,
 a controller to transmit the information on the indoor environment sensed by the indoor environmental sensor through the wireless transmitting/receiving part, and
 an indoor environment control device to control at least one indoor environment.

27. The indoor environmental control system of claim 26, wherein the indoor environmental control device may be turned on and off by a voice command of a user.